October 17, 2002

RE: Kendon Corporation 035-10273-00064
TO: Interested Parties / Applicant

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for consideration at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

NEW SOURCE CONSTRUCTION PERMIT and MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

Kendon Corporation
3904 South Hoyt Avenue
Muncie, Indiana 47307

(herein known as the Permittee) is hereby authorized to *construct and* operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 035-10273-00064	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: October 17, 2002

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary gray iron foundry.

Authorized individual:	Plant Manager
Source Address:	3904 South Hoyt Avenue, Muncie, IN47307
Mailing Address:	PO Box 2343, Muncie, IN 47307
Phone Number:	765-282-1515
SIC Code:	3312
Source Location:	Delaware
County Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit (MSOP) Minor Source, under PSD Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

One (1) gray iron foundry, with a maximum metal melting rate of one (1) ton per hour and consists of the following processes:

(1) One (1) sand handling process, with a maximum raw material throughput of ten (10) tons per hour, controlled by one (1) baghouse (Torit DF T2 8) and exhausts to the general exhaust vent designated as EP-03.

(2) One (1) melting process, including the melting of gray iron by two (2) electric induction furnaces (designated as EU-01 and EU-02), charge handling, pouring and cooling, with a maximum metal throughput of one (1) ton per hour and exhausts to a stack designated as EP-01 and EP-02 respectively.

(3) One (1) cleaning and finishing process with a maximum metal throughput of one (1) ton per hour and exhausts to the general exhaust vent designated as EP-03.

(4) One (1) shakeout process, with a maximum metal throughput of one (1) ton per hour and exhausts to the general exhaust vent designated as EP-03.

(5) One (1) pouring and casting process, with a maximum metal throughput of one (1) ton per hour and exhausts to the general exhaust vent designated as EP-03.

(6) One (1) cooling process, with a maximum metal throughput of one (1) ton per hour and exhausts to the general exhaust vent designated as EP-03.

(7) One (1) oxyacetylene station, with a maximum metal cutting rate of thirty (30) inches per minute and exhausts to the atmosphere.

(8) One (1) initial grinding process, with a maximum metal throughput of one-half (1/2) ton per hour, controlled by a dust collector(Uniblast DC-100) and exhausts to the general exhaust vent designated as EP-03.

(9) One (1) initial blasting process, with a maximum metal throughput of one-half (1/2) ton per hour, controlled by one (1) baghouse (Uniblast DC-100) and exhausts to the general exhaust vent designated as EP-03.

(10) One (1) final grinding process, with a maximum metal throughput of one-half (1/2) ton per

hour, controlled by dust collector(Uniblast DC-100) and exhausts to the general exhaust vent designated as EP-03.

(11) One (1) final blasting process, with a maximum metal throughput of one-half (1/2) ton per hour, controlled by one (1) baghouse (Uniblast DC-100) and exhausts to the general exhaust vent designated as EP-03.

SECTION B GENERAL CONSTRUCTION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled AMinor Source Operating Permit@, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

(a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.

(1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.

(2) If the Affidavit of Construction does not verify that the facilities covered in this Construction Permit were constructed as proposed in the application, then the Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section prior to beginning operation of the facilities.

(b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit

Administration & Development Section, the Permittee shall attach it to this document.

(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

(e) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

SECTION C **SOURCE OPERATION CONDITIONS**

Entire Source

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

(a) The total source potential to emit of PM is less than 100 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.

(b) Any change or modification which may increase potential to emit to 100 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAQ prior to making the change.

C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMPs shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the “authorized individual” as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee=s right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

(c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of

this permit is not consistent with purposes of this article.

C.7 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.8 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

Testing Requirements

C.9 Performance Testing [326 IAC 3-6]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAQ within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

Compliance Monitoring Requirements

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required

monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.11 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.12 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 1-6]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee=s current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee=s current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously

submitted a request for an administrative amendment to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.13 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.14 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more

than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.15 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.16 General Record Keeping Requirements [326 IAC 2-6.1-2]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented when operation begins.

C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) Unless otherwise specified in this permit, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

C.18 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-3]:

One (1) gray iron foundry, with a maximum metal melting rate of one (1) ton per hour and consists of the following processes:

(1) One (1) sand handling process, with a maximum raw material throughput of ten (10) tons per hour, controlled by one (1) baghouse (Torit DF T2 8) and exhausts to the general exhaust vent designated as EP-03.
(2) One (1) melting process, including the melting of gray iron by two (2) electric induction furnaces (designated as EU-01 and EU-02), charge handling, pouring and cooling, with a maximum metal throughput of one (1) ton per hour and exhausts to a stack designated as EP-01 and EP-02 respectively.
(3) One (1) cleaning and finishing process with a maximum metal throughput of one (1) ton per hour and exhausts to the general exhaust vent designated as EP-03.
(4) One (1) shakeout process, with a maximum metal throughput of one (1) ton per hour and exhausts to the general exhaust vent designated as EP-03.
(5) One (1) pouring and casting process, with a maximum metal throughput of one (1) ton per hour and exhausts to the general exhaust vent designated as EP-03.
(6) One (1) cooling process, with a maximum metal throughput of one (1) ton per hour and exhausts to the general exhaust vent designated as EP-03.
(7) One (1) oxyacetylene station, with a maximum metal cutting rate of thirty (30) inches per minute and exhausts to the atmosphere.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 PSD Minor Status [326 IAC 2-2] [40 CFR 52.21]

(a) The total source potential to emit any criteria pollutant is limited to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.

(b) Any change or modification in the equipment covered in this permit which may increase the potential to emit to 100 tons per year, shall require a PSD permit pursuant to 326 IAC 2-2 and 40 CFR 52.21, before such change may occur.

(c) The Particulate Matter (PM) emissions from various operations shall be limited as follows:

Process/facility	PM (tons/year)	PM (lb/hour)
Scrap and Charge Handling	2.63	0.60
(2) Electric Induction Furnaces	3.94	0.90
Pouring/ Casting	18.4	4.20
Castings Cooling	6.13	1.40
Castings Shakeout	14.02	3.20
Castings Cleaning and Finishing	2.53	0.58
Core Making	3.94	0.90
Mold Making	3.94	0.90
Sand Handling	1.6	0.37
Flame Cutting	0.64	0.15

(d) The raw material throughput for the Sand Handling operation shall be limited to 87,600 tons per 12 consecutive months period rolled on monthly basis.

This will ensure limiting the PM emissions from the entire source to below one hundred (100) tons per 12 month period the 326 IAC 2-2 (PSD) major source level.

D.1.2 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the PM emissions shall be limited as follows:

Process	PM limit (pounds per hour)
two (2) electric induction furnaces	2.05 each
sand handling operation	41.0
pouring and casting operation	20.4
Shakeout operation	20.4
Cooling operation	20.4
cleaning and finishing operation	4.1

These limitations are derived based on the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

E = 4.10P^0.67 where: E = rate of emission in pounds per hour,
P = process weight in tons per hour.

D.1.3 New Facilities, General Reduction Requirements [326 IAC 8-1-6]

(a) Potential VOC emissions from each facility at this source are less than 25 tons per year, therefore, the requirements of 326 IAC 8-1-6 will not apply in this case.

(b) Any change or modification in the equipment covered in this permit which may increase the potential to emit to 25 tons VOC per year, shall require the approval of a Best Available Control Technology (BACT) plan, pursuant to 326 IAC 8-1-6, before such change may occur.

D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this emissions unit and any control devices.

Compliance Determination Requirements

D.1.5 Particulate Matter (PM)

The Baghouses Torit DF T2-8 for PM control shall be in operation and control emissions from the Sand Handling operation at all times that the Sand Handling is being performed.

D.1.6 Testing Requirements [326 IAC 2-8-5 (a)(1), (4)] [326 IAC 2-1.1-11]

Within 6 months after issuance of this permit, in order to demonstrate compliance with the sand handling process limit in Condition D.1.1 (c), the Permittee shall perform PM testing on sand handling operation utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.7 Visible Emissions Notations

(a) Visible emission notations of the sand handling operation stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.8 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Sand Handling operation, at least once per shift when the Sand Handling is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 to 5.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall be subject to approval by IDEM, OAQ and shall be calibrated at least once every six (6) months.

D.1.9 Baghouse Inspections

An inspection shall be performed within the last month of each calendar quarter of all bags controlling the Sand Handling operation. All defective bags shall be replaced.

D.1.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section C- Malfunctions Report). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C – Malfunctions Report).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.11 Record Keeping Requirements

(a) To document compliance with Condition D.1.7, the Permittee shall maintain records of visible emission notations of the Sand Handling operation stack exhaust once per shift.

(b) To document compliance with Condition D.1.8, the Permittee shall maintain the per shift records of the inlet and outlet differential static pressure during normal operation.

(c) To document compliance with Condition D.1.9, the Permittee shall maintain records of the results of the inspections required under Condition D.1.10 and the dates the vents are redirected.

(d) To document compliance with Condition D.1.1 (d), the Permittee shall maintain records of the raw material throughput for the Sand Handling operation.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(8) One (1) initial grinding process, with a maximum metal throughput of one-half (1/2) ton per hour, controlled by adust collector(Uniblast DC-100) and exhausts to the general exhaust vent designated as EP-03.
(9) One (1) initial blasting process, with a maximum metal throughput of one-half (1/2) ton per hour, controlled by one (1) baghouse (Uniblast DC-100) and exhausts to the general exhaust vent designated as EP-03.
(10) One (1) final grinding process, with a maximum metal throughput of one-half (1/2) ton per hour, controlled by dust collector(Uniblast DC-100) and exhausts to the general exhaust vent designated as EP-03.
(11) One (1) final blasting process, with a maximum metal throughput of one-half (1/2) ton per hour, controlled by one (1) baghouse (Uniblast DC-100) and exhausts to the general exhaust vent designated as EP-03.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Exemption Applicability [326 IAC 2-1.1-3 (e)(26)]

Pursuant to 326 IAC 2-1.1-3 (e)(26) the Baghouse Uniblast DC-100 with grain loading less than or equal to 0.03 grains per actual cubic foot and exhaust flow rate less than or equal to 4000 actual cubic feet per minute should be in operation at all time the grinding and blasting processes are in operation. This will ensure limiting the PM_{10} emissions from the entire source to below one hundred (100) tons per 12 month period the 326 IAC 2-2 (PSD) major source level.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	**Kendon Corporation**
Address:	**3904 South Hoyt Avenue,**
City:	**Muncie, IN 47307**
Phone #:	**765-282-1515**
MSOP #:	**035-10273-00064**

I hereby certify that Kendon Corporation is
9 still in operation.
9 no longer in operation.

I hereby certify that Kendon Corporation is
9 in compliance with the requirements of MSOP 035-10273-00064.
9 not in compliance with the requirements of MSOP 035-10273-00064.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF ›MALFUNCTION‹ AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. (____)_____
LOCATION: (CITY AND
COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP:_____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND
REASON:_____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 19____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC,
OTHER:_____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____
_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____
_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE) _____
_____

MALFUNCTION REPORTED BY:_____TITLE:_____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

Mail to: Permit Administration & Development Section
Office Of Air Quality
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Kendon Corporation
3904 South Hoyt Avenue
Muncie, Indiana 47307

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____.
(Title) (Company Name)

3. By virtue of my position with _____,I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____ .
(Company Name)

4. I hereby certify that the Kendon Corporation, 3904 South Hoyt Avenue, Muncie, Indiana 47307 has constructed the equipment in conformity with the requirements and intent of the Construction Permit Application that was turned into a Minor Source Operating Permit (MSOP) application and received by the Office of Air Quality and as permitted pursuant to MSOP No. F-035-10273-00064 issued on _____ _____

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

_____
Signature

_____
Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana on this _____ day of _____, 19 _____ .

My Commission expires: _____

_____
Signature

_____
Name (typed or printed)

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a New Construction and Minor Source Operating Permit (MSOP)

Source Background and Description

Source Name:	**Kendon Corporation**
Source Location:	**3904 South Hoyt Avenue, Muncie, Indiana 47307**
County:	**Delaware**
Construction Permit No.:	**CP-035-10273-00064**
SIC Code:	**3312**
Permit Reviewer:	**Gurinder Saini**

On August 30, 2002, the Office of Air Quality (OAQ) had a notice published in the Muncie Star Press, Muncie, Indiana, stating that Kendon Corporation had applied for approval to construct and operate a gray iron foundry. The public notice also stated that OAQ proposed to issue the permit for this operation and provided information on how the public could review the proposed approval and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on the draft permit.

Written comments were received from Matthew Clark of Bandag Incorporation on behalf of Kendon Corporation on September 30, 2002. These comments and the IDEM, OAQ responses are presented in the following pages. In the responses, additions to the permit are bolded for emphasis; the language with a line through it has been deleted.

Comment 1:

Testing requirements

Section D specifies stack testing for the Torit DF T2-8 model dust collector during the period between 3 and 6 months of the permit's effective date and every 5 years thereafter. BANDAG/KENDON objects to this requirement for the following reasons:

1. The permit already specifies pressure drop monitoring for the baghouse, which is an important indicator of dust collector performance.

2. The permit requires a preventive maintenance plan for control equipment

3. Baghouses and cartridge dust collectors are well-established efficient control technologies for particulate matter. Operated within the pressure drop specifications, and with equipment inspections, collection of at least 98% by weight of the emissions is not in dispute. If the actual number is 97% or 99%, it makes no difference in permit requirements.

4. Selecting stack testing services, qualifying them, and completing the testing will add at least $3000 - $5000 to the plant costs. These expenditures are not warranted as explained in 2.3.

Response 1:

The sand handling operation at this source uses Torit DF T2 8 Baghouse to control particulate matter (PM) emissions. The uncontrolled potential to emit of PM from the sand handling operation is 157.7 tons per year. The potential to emit after the use of baghouse to control PM emissions is 1.6 tons per year. The baghouse on this operation is not considered integral to the process. Therefore, this permit contains the enforceable condition to operate the baghouse at all time the sand handling process is in operation. The sand handling process has potential PM emissions greater than major source threshold and uses a control device to achieve compliance with the minor status of the source. Also as mentioned in the Technical Support Document for this permit, this source has been constructed and operated without any air approval. Therefore, it is pertinent that the emission rate after control is verified using the performance stack test to demonstrate the true minor status for this source. The performance test should be repeated once every five years to show compliance with the applicable limits. After the initial performance test, if it is demonstrated to the IDEM, OAQ's satisfaction that the actual emissions are much lower than the potential emission rate for this equipment, and proper maintenance and compliance monitoring items are followed for this process, then the Permittee can request an amendment to the permit to remove the successive testing requirements. The Permittee can also present this evaluation during the renewal application process before the expiration of this permit. IDEM, OAQ reserves the authority to grant or deny any such request.

No changes are made to any permit conditions.

Comment 2:

Reporting requirements

Based on the requirements for a preventive maintenance plan for dust collectors, emissions observations, pressure drop monitoring, and an annual compliance certification, BANDAG/KENDON objects to the additional requirement for quarterly compliance reports. In the general review of the plant operations contained in the draft permit package, IDEM acknowledges that plant emissions are minor. Given that the emissions are unlikely to change after permit issuance, there appears to be little environmental need to compel quarterly reporting. In addition, IDEM reserves the right to inspect both the plant and BANDAG/KENDON retains significant liability for proper monitoring, so the quarterly compliance reports provide little in the way of "added" compliance assurance. For many large manufacturers, such requirements can be justified. For a small plant like the KENDON facility, they add unnecessary burdens to the plant.

Response 2:

There are no quarterly reporting requirements in the MSOP 035-10273-00064. Therefore, no changes are made to any permit conditions.

Comment 3:

Compliance Response Plan

For a facility the size of Kendon, the need for a written compliance plan is unnecessary. The dust collectors, the primary focus of compliance efforts, can easily be maintained in proper operational condition using a simple preventive maintenance schedule.

Response 3:

The Compliance Response Plan and the Preventive Maintenance Plan are separate documents in part because of a difference in how to determine if the condition is violated. Failure to take the response steps prescribed in the Compliance Response Plan does constitute a violation of the permit. Failure to take an

action prescribed in the Preventive Maintenance Plan does not constitute a violation of the permit, unless the failure to take the prescribed action causes a violation of any limitation on emissions or potential to emit.

IDEM, OAQ has worked with members of the Clean Air Act Advisory Council's Permit Committee, Indiana Manufacturing Association, Indiana Chamber of Commerce and individual applicants regarding the Preventive Maintenance Plan, the Compliance Monitoring Plan and the Compliance Response Plan. The plans are fully supported by rules promulgated by the Air Pollution Control Board. The plans are the mechanism each permittee will use to verify continuous compliance with its permit and the applicable rules and will form the basis for each permittee's Annual Notification.

The Compliance Response Plan (CRP) contains the "corrective actions" also known as the "response steps" that the permittee would take in the event an inspection indicated an “out of specification situation”, and also set out the time frame for taking the corrective action. Permittee can choose to use one document to serve both purposes.

As explained in response 1, the uncontrolled potential to emit of the sand handling process is greater than major source threshold. Therefore, it is important that the Permittee operates the control equipment on this process on continuous basis and identifies the response steps and documents them in the Compliance Response Plan in the event of the out of compliance situation. Therefore no changes are made to any permit conditions.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a New Construction and Minor Source Operating Permit (MSOP)

Source Background and Description

Source Name:	**Kendon Corporation**
Source Location:	**3904 South Hoyt Avenue, Muncie, Indiana 47307**
County:	**Delaware**
Construction Permit No.:	**CP-035-10273-00064**
SIC Code:	**3312**
Permit Reviewer:	**Gurinder Saini**

The Office of Air Quality (OAQ) has reviewed a MSOP application from Kendon Corporation relating to the operation of gray iron foundry.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities/units:

One (1) gray iron foundry, with a maximum metal melting rate of one (1) ton per hour and consists of the following processes:

(1) One (1) sand handling process, with a maximum raw material throughput of ten (10) tons per hour, controlled by one (1) baghouse (Torit DF T2 8) and exhausts to the general exhaust vent designated as EP-03.
(2) One (1) melting process, including the melting of gray iron by two (2) electric induction furnaces (designated as EU-01 and EU-02), charge handling, pouring and cooling, with a maximum metal throughput of one (1) ton per hour and exhausts to a stack designated as EP-01 and EP-02 respectively.
(3) One (1) cleaning and finishing process with a maximum metal throughput of one (1) ton per hour and exhausts to the general exhaust vent designated as EP-03.
(4) One (1) shakeout process, with a maximum metal throughput of one (1) ton per hour and exhausts to the general exhaust vent designated as EP-03.
(5) One (1) pouring and casting process, with a maximum metal throughput of one (1) ton per hour and exhausts to the general exhaust vent designated as EP-03.
(6) One (1) cooling process, with a maximum metal throughput of one (1) ton per hour and exhausts to the general exhaust vent designated as EP-03.
(7) One (1) oxyacetylene station, with a maximum metal cutting rate of thirty (30) inches per minute and exhausts to the atmosphere.
(8) One (1) initial grinding process, with a maximum metal throughput of one-half (1/2) ton per hour, controlled by adust collector(Uniblast DC-100) and exhausts to the general exhaust vent designated as EP-03.
(9) One (1) initial blasting process, with a maximum metal throughput of one-half (1/2) ton per hour, controlled by one (1) baghouse (Uniblast DC-100) and exhausts to the general exhaust vent designated as EP-03.
(10) One (1) final grinding process, with a maximum metal throughput of one-half (1/2) ton per hour, controlled by dust collector (Uniblast DC-100) and exhausts to the general exhaust vent designated as EP-03.
(11) One (1) final blasting process, with a maximum metal throughput of one-half (1/2) ton per

hour, controlled by one (1) baghouse (Uniblast DC-100) and exhausts to the general exhaust vent designated as EP-03.

Existing Approvals

This is the first air approval for this source.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
01	North Electric Induction Furnace	25	1.0	1000	2600
02	South Electric Induction Furnace	25	1.5	1000	2600

Air Pollution Control Justification

The baghouse on the grinding and shot blasting equipment complies with design grain loading of less than or equal to 0.03 grains per actual cubic foot and a flow rate less than or equal to 4000 actual cubic feet per minute. Therefore, pursuant to 326 IAC 2-1.1-3 (e)(26), this equipment is exempt.

Enforcement Issue

(a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment.*

(b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

The staff recommends to the Commissioner that the new Construction and MSOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on October 20, 1998 with additional information received on March 23, 1999, May 17, 1999, July 16, 1999 and February 8, 2000.

Emission Calculations

See Appendix A (Emissions Calculation Spreadsheet, pages 1 through 10) for the detailed emission calculations.

Potential To Emit for the Source

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as Athe maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.

S. EPA.@

This table reflects the PTE before controls. Control equipment is not considered enforceable until it has been required in a enforceable permit.

Pollutant	Potential to Emit (tons/year)
PM	360.24
PM-10	77.38
SO_2	0.09
VOC	5.87
CO	--
NO_x	4.42

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Lead	0.18
Cobalt	0.01
Chromium	0.07
Nickel	0.12
TOTAL	0.38

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM is greater than 100 tons per year. The Permittee uses controls to limit PM emissions below 100 tons per year. Therefore the provisions of 326 IAC 2-2 (PSD) do not apply to this source.

(b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM and PM10 is greater than 25 tons per year. Therefore the source is subject to the provisions of 326 IAC 2-5.1-3 (Construction Permit) and 326 IAC 2-6.1 (MSOP).

(c) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM10 and VOC is less than 100 tons per year. Therefore the source is not subject to the provisions of 326 IAC 2-7 (Part 70 Operating Permit).

(d) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(e) Fugitive Emissions
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD applicability.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls.

	Potential to Emit (tons/year)					
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X
Scrap and Charge Handling	2.63	1.58	-	-	-	-
(2) Electric Induction Furnaces	3.94	3.77	-	-	-	-
Pouring/ Casting	18.4	9.02	0.09	0.61	-	0.04
Castings Cooling	6.13	6.13	-	-	-	-
Castings Shakeout	14.02	9.81	-	5.26	-	-
Castings Cleaning and Finishing	2.53	0.25	-	-	-	-
Core Making	3.94	3.94	-	-	-	2.19
Mold Making	3.94	3.94	-	-	-	2.19
Sand Handling	1.6	0.2	-	-	-	-
Flame Cutting	0.64	0.64	-	-	-	-
Total from Gray Iron Foundry	57.75	39.32	0.09	5.87	-	4.42
PSD Threshold	100	100	100	100	100	100

(a) This new source is **not** a major stationary source because even though it is one of the 28 listed source categories, it does not emit 100 tons per year or more of any regulated pollutant. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.

(b) The Permittee has installed baghouses to control PM/PM10 emissions from the Sand Handling, Grinding and Shot Blasting equipment. The operation of these baghouses controls the potential to emit of the entire source below the PSD major thresholds. Therefore the Permittee has limited the Source wide PM emissions to less than 100 ton per year. This makes the 326 IAC 2-2 not applicable.

County Attainment Status

The source is located in Delaware County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Delaware County has been designated as attainment or unclassifiable for ozone.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This un-permitted existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) all criteria pollutant (excluding PM) is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, or
(c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability – Entire Source

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of gray iron foundry will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is located in Delaware County and the potential to emit of any criteria pollutant is less than one hundred (100) tons per year. The potential to emit of PM is limited to less than 100 tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-2 (PSD)

(a) The Permittee has agreed to limit the PM emissions from the entire source to less than 100 tons per year to avoid the applicability of 326 IAC 2-2 (PSD). Therefore, pursuant to this rule, the bag houses Torit DF-T2-8 and Uniblast DC-100 shall be operated at all times the sand handling operation and the grinding and blasting operations are being performed. The operation of these controls limits the PM emissions from the entire source to below 100 tons per year. Therefore, the requirements of 326 IAC 2-2 do not apply.

(b) The Particulate Matter (PM) emissions various operations shall be limited as follows:

Process/facility	PM (tons/year)	PM (lb/hour)
Scrap and Charge Handling	2.63	0.60
(2) Electric Induction Furnaces	3.94	0.90
Pouring/ Casting	18.4	4.20
Castings Cooling	6.13	1.40
Castings Shakeout	14.02	3.20
Castings Cleaning and Finishing	2.53	0.58
Core Making	3.94	0.90
Mold Making	3.94	0.90
Sand Handling	1.6	0.37
Flame Cutting	0.64	0.15

In the above table, the PM emission rate is calculated as follows:

PM emission rate (lb/hour)= tons of PM / year X 2000 lb / ton X 1 year / 8760 hours

(c) The raw material throughput for the Sand Handling operation shall be limited to 87,600 tons per 12 consecutive months period rolled on monthly basis. The annual throughput is calculated as follows:

Sand throughput rate = 10 tons of Sand / hour X 8760 hour / year

= 87,600 tons of Sand/year

326 IAC 5-1 (Visible Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Electric Induction Furnaces

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations)**,** the particulate matter (PM) from the two (2) electric induction furnaces shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour.

$E_f = 4.10*(1\ ton/hr)^{0.67} = 4.10\ lb/hr$;

4.10 lb/hr * 8760 hr/yr * ton/2000 lb = 17.95 ton/yr/ furnace.

The furnaces are in compliance with 326 IAC 6-3 because the potential to emit from each unit is 1.97 tons per year, which is less than the allowable emissions of 17.95 tons per year.

No 326 IAC 8 rules applicable to these units because there are no VOC emissions.

State Rule Applicability - Sand Handling

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations)**,** the particulate matter (PM) from the sand handling operation shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

E = 4.10P^0.67 where: E = rate of emission in pounds per hour,
P = process weight in tons per hour.

$E = 4.10 * (10 \text{ ton/hr})^{0.67} = 41.0 \text{ lb/hr};$

41.0 lb/hr * 8760 hr/yr * ton/2000 lb = 179.58 ton/yr.

This process is in compliance with 326 IAC 6-3 because the potential to emit from the process is 157.7 tons per year, which is less than the allowable emissions of 179.58 tons per year.

No 326 IAC 8 rules applicable to this operation because there are no VOC emissions.

State Rule Applicability - Pouring and Casting

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations)**,** the particulate matter (PM) from the pouring and casting operation shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

E = 4.10P^0.67 where: E = rate of emission in pounds per hour,
P = process weight in tons per hour.

$E = 4.10 * (11 \text{ ton/hr})^{0.67} = 20.4 \text{ lb/hr};$

20.4 lb/hr * 8760 hr/yr * ton/2000 lb = 89.5 ton/yr.

This process is in compliance with 326 IAC 6-3 because the potential to emit from the process is 18.4 tons per year which is less than the allowable emissions of 89.5 tons per year.

326 IAC 8-1-6 (New facilities; general reduction requirements) does not apply to this operation because the potential to emit of VOC is less than 25 tons per year.

State Rule Applicability - Shakeout Operation

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations)**,** the particulate matter (PM) from the shakeout operation shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

E = 4.10P^0.67 where: E = rate of emission in pounds per hour,
P = process weight in tons per hour.

$E = 4.10 * (11 \text{ ton/hr})^{0.67} = 20.4 \text{ lb/hr};$

20.4 lb/hr * 8760 hr/yr * ton/2000 lb = 89.5 ton/yr.

This process is in compliance with 326 IAC 6-3 because the potential to emit from the process is 14.0 tons per year which is less than the allowable emissions of 89.5 tons per year.

326 IAC 8-1-6 (New facilities; general reduction requirements) does not apply to these operations because the potential to emit of VOC is less than 25 tons per year.

State Rule Applicability - Four (4) Grinding and Blasting Operations

326 IAC 2-1.1-3 (Exemption)

The Grinding and Blasting operation is exempt from permitting requirements because the baghouse on this operation has a design grain loading less than 0.03 grains per actual cubic foot and flow rate less than 4000 actual cubic feet per minute. Therefore, pursuant to 326 IAC 2-1.1-3 (e)(26), the operation of the baghouse whenever the grinding and blasting operations are operating renders this operation exempt from the permitting requirements.

No 326 IAC 8 rules applicable to these units because there are no VOC emissions.

State Rule Applicability - Cooling Operation

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations)**,** the particulate matter (PM) from the cooling operation shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

E = 4.10P^0.67 where: E = rate of emission in pounds per hour,
P = process weight in tons per hour.

$E = 4.10 * (11.0 \text{ ton/hr})^{0.67} = 20.4 \text{ lb/hr};$

20.4 lb/hr * 8760 hr/yr * ton/2000 lb = 89.5 ton/yr.

This process is in compliance with 326 IAC 6-3 because the potential to emissions from the process is 6.13 tons per year which is less than the allowable emissions of 89.5 tons per year.

No 326 IAC 8 rules applicable to this operation because there are no VOC emissions.

State Rule Applicability - Cleaning and Finishing Operation

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations)**,** the particulate matter (PM) from the cleaning and finishing operation shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

E = 4.10P^0.67 where: E = rate of emission in pounds per hour,
P = process weight in tons per hour.

$E = 4.10 * (1.0 \text{ ton/hr})^{0.67} = 4.10 \text{ lb/hr};$

4.10 lb/hr * 8760 hr/yr * ton/2000 lb = 17.9 ton/yr.

This process is in compliance with 326 IAC 6-3 because the potential to emit from the process is 0.02 tons per year per unit which is less than the allowable emissions of 17.9 tons per year.

No 326 IAC 8 rules applicable to this operation because there are no VOC emissions.

Testing Requirements

The two baghouses (one on the sand handling operation and one on the grinding and blasting

operation) control PM emissions from these operations and make the requirements of 326 IAC 2-2 (PSD) not applicable. Therefore, these baghouses will be tested to demonstrate compliance with the applicable limits.

Compliance Requirements

The compliance monitoring requirements applicable to this source are as follows:

1. The sand handling operation has applicable compliance monitoring conditions as specified below:

   (a) Visible emissions notations of the sand handling operation exhaust shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously Anormal@ means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

   (b) The Permittee shall record the total static pressure drop across the baghouse controlling the sand handling operation, at least once per shift when the sand handling is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 1.0 to 5.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

   These monitoring conditions are necessary because the baghouse for the sand handling operation must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and not applicability of 326 IAC 2-2 (PSD).

Conclusion

The operation of this gray iron foundry shall be subject to the conditions of the attached proposed **MSOP No.: MSOP035-10273-00064.**

Potential Emissions

Appendix A: Emission Calculations

Company Name: Kendon Corporation
Plant Location: 3904 South Hoyt Avenue, Muncie, Indiana 47307
County: Delaware
Permit Reviewer: GS
Permit #: 035-10237
Plt. ID #: 035-00064

* * Process Emissions * *

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Scrap and Charge	1	PM	0.60000	2.63	2.63		
Handling		PM-10	0.36000	1.58	1.58		
SCC# 3-04-003-15		SO2	0.00000	0.00	0.00		
AP-42 Ch. 12.10		NOx	0.00000	0.00	0.00		
		VOC	0.00000	0.00	0.00		
		CO	0.00000	0.00	0.00		
		chromium	0.00023	0.00	0.00		
		cobalt	0.00002	0.00	0.00		
		nickel	0.00040	0.00	0.00		
		arsenic	0.00008	0.00	0.00		
		cadmium	0.00004	0.00	0.00		
		selenium	0.00001	0.00	0.00		
		Lead	0.00230	0.01	0.01		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

P= 1 tons/hr

limit = 4.1 x (1 ^0.67) = 4.1 lb/hr (allowable)

with potential:

2.6 tons/yr x 2000 lb/ton / 8760 hr/yr = 0.6 lb/hr (will comply)

Kendon Corporation
3904 South Hoyt Avenue, Muncie, Indiana 47307

Permit #: 035-10237
Plt. ID #: 035-00064

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Melting - Electric	1	PM	0.900000	3.94	3.94		
Induction Furnace		PM-10	0.860000	3.77	3.77		
		SO2	0.000000	0.00	0.00		
		NOx	0.000000	0.00	0.00		
EPA SCC# 3-04-003-03		VOC	0.000000	0.00	0.00		
AP-42 Ch. 12.10		CO	0.000000	0.00	0.00		
		chromium	0.000230	0.00	0.00		
		cobalt	0.000020	0.00	0.00		
		nickel	0.000400	0.00	0.00		
		arsenic	0.000080	0.00	0.00		
		cadmium	0.000040	0.00	0.00		
		selenium	0.000010	0.00	0.00		
		Lead	0.002300	0.01	0.01		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

P= 0.5 tons/hr

limit = 4.1 x (0.5 ^0.67) = 2.6 lb/hr (allowable)

with potential:

3.9 tons/yr x 2000 lb/ton / 8760 hr/yr = 0.9 lb/hr (will comply)

Kendon Corporation
3904 South Hoyt Avenue, Muncie, Indiana 47307

Permit #: 035-10237
Plt. ID #: 035-00064

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Pouring/Casting	1.0	PM	4.200000	18.40	18.40		
SCC# 3-04-003-18		PM-10	2.060000	9.02	9.02		
		SO2	0.020000	0.09	0.09		
		NOx	0.010000	0.04	0.04		
		VOC	0.140000	0.61	0.61		
		CO	---	0.00	0.00		
		chromium	0.001600	0.01	0.01		
		cobalt	0.000130	0.00	0.00		
		nickel	0.002810	0.01	0.01		
		arsenic	0.000550	0.00	0.00		
		cadmium	0.000250	0.00	0.00		
		selenium	0.000040	0.00	0.00		
		Lead	0.016170	0.07	0.07		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:

P= 1 tons/hr

limit = 55 x (1 ^0.11) - 40 = 15.0 lb/hr (allowable)

with potential:

18.4 tons/yr x 2000 lb/ton / 8760 hr/yr = 4.2 lb/hr (will comply)

Kendon Corporation
3904 South Hoyt Avenue, Muncie, Indiana 47307

Permit #: 035-10237
Plt. ID #: 035-00064

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Castings Cooling	1.0	PM	1.400000	6.13	6.13	none	
SCC# 3-04-003-25		PM-10	1.400000	6.13	6.13	none	
		SO2	0.000000	0.00	0.00		
		NOx	0.000000	0.00	0.00		
		VOC	0.000000	0.00	0.00		
		CO	---	0.00	0.00		
		Lead	---	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

P= 1 tons/hr

limit = 4.1 x (1 ^0.67) = 4.1 lb/hr (allowable)

with potential:

6.1 tons/yr x 2000 lb/ton / 8760 hr/yr = 1.4 lb/hr (will comply)

Kendon Corporation
3904 South Hoyt Avenue, Muncie, Indiana 47307

Permit #: 035-10237
Plt. ID #: 035-00064

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Castings Shakeout	1.0	PM	3.200000	14.02	14.02		
		PM-10	2.240000	9.81	9.81		
SCC# 3-04-003-31		SO2	0.000000	0.00	0.00		
AP-42 Ch. 12.10		NOx	0.000000	0.00	0.00		
		VOC	1.200000	5.26	5.26		
		CO	---	0.00	0.00		
		chromium	0.001220	0.01	0.01		
		cobalt	0.000100	0.00	0.00		
		nickel	0.002140	0.01	0.01		
		arsenic	0.000420	0.00	0.00		
		cadmium	0.000190	0.00	0.00		
		selenium	0.000030	0.00	0.00		
		Lead	0.012320	0.05	0.05		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

P= 1 tons/hr

limit = 4.1 x (1 ^0.67) = 4.1 lb/hr (allowable)

with potential:

14.0 tons/yr x 2000 lb/ton / 8760 hr/yr = 3.2 lb/hr (will comply)

Kendon Corporation
3904 South Hoyt Avenue, Muncie, Indiana 47307

Permit #: 035-10237
Plt. ID #: 035-00064

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Castings Cleaning and Finishing	2.000	PM	17.000000	148.92	2.53	Baghouse	98.30%
		PM-10	1.700000	14.89	0.25	Baghouse	98.30%
		SO2	0.000000	0.00	0.00		
SCC# 3-04-003-40		NOx	0.000000	0.00	0.00		
AP-42 Ch. 12.10		VOC	0.000000	0.00	0.00		
		CO	0.000000	0.00	0.00		
		chromium	0.006460	0.06	0.06		
		cobalt	0.000510	0.00	0.00		
		nickel	0.011390	0.10	0.10		
		arsenic	0.002210	0.02	0.02		
		cadmium	0.001020	0.01	0.01		
		selenium	0.000170	0.00	0.00		
		Lead	0.004500	0.04	0.04		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

P= 2 tons/hr

limit = 4.1 x (2 ^0.67) = 6.5 lb/hr (allowable)

with potential:

2.5 tons/yr x 2000 lb/ton / 8760 hr/yr = 0.6 lb/hr (will comply)

Kendon Corporation
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Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Core Making	1	PM	0.90	3.94	3.94	none	
SCC# 3-04-003-53		PM-10	0.90	3.94	3.94	none	
AP-42 Ch. 12.10		SO2	0.00	0.00	0.00	none	
		NOx	0.50	2.19	2.19	none	
		VOC	---	---	---	none	
		CO	---	0.00	0.00	none	
		Lead	---	0.00	0.00	none	

(Note to Reviewer: VOC emissions to be determined by type of resin being used in core making process).

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

P= 1 tons/hr

limit = 4.1 x (1 ^0.67) = 4.1 lb/hr (allowable)

with potential:

3.9 tons/yr x 2000 lb/ton / 8760 hr/yr = 0.9 lb/hr (will comply)

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Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Mold Making	1	PM	0.90	3.94	3.94	none	
SCC# 3-04-003-53		PM-10	0.90	3.94	3.94	none	
AP-42 Ch. 12.10		SO2	0.00	0.00	0.00	none	
		NOx	0.50	2.19	2.19	none	
		VOC	---	0.00	0.00	none	
		CO	---	0.00	0.00	none	
		Lead	---	0.00	0.00	none	

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

P= 1 tons/hr

limit = 4.1 x (1 ^0.67) = 4.1 lb/hr (allowable)

with potential:

3.9 tons/yr x 2000 lb/ton / 8760 hr/yr = 0.9 lb/hr (will comply)

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Process:	Rate (tons sand/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Sand Handling	10	PM	3.6	157.7	1.6	Baghouse	99.00%
EPA SCC# 3-04-003-50		PM-10	0.54	23.7	0.2	Baghouse	99.00%

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:

P= 10 tons/hr

limit = 55 x (10 ^0.11) - 40 = 30.9 lb/hr (allowable)

with potential:

1.6 tons/yr x 2000 lb/ton / 8760 hr/yr = 0.4 lb/hr (will comply)

Process:	Max Throughput (kin/year)	Max thickness (in)	Metal Cutting rate (in/min)	Ef (lb/kin)	PM-10 emissions (ton/yr)
Flame Cuttng	7884	0.5	30	0.162	0.64

METHODOLOGY *

Emission factors are from SARA 313 Reporting Guide, the units are lbs/kin of metal cutted
Throuput (kin/yr) = Station Number *Maximum Metal Thickness cut (in)/1(in)* Maximum Metal Cutting Rate (in/min)*60(min/hr) * 8760 (hrs/yr)/1000
Pollutant Emission (tons/yr) =Throuput (kin/yr) * Emission factor (lbs/ kin)/2000 (lbs/ton)
* NOTE: The Methodology are from SARA Reporting Guide

Kendon Corporation
3904 South Hoyt Avenue, Muncie, Indiana 47307

Permit #: 035-10237
Plt. ID #: 035-00064

Summary

Pollutant	Ebc (ton/yr)	Eac (ton/yr)
PM	360.24	57.75
PM-10	77.38	39.32
SO2	0.09	0.09
NOx	4.42	4.42
VOC	5.87	5.87
CO	0.00	0.00
Pollutant HAPs	**Ebc (ton/yr)**	**Eac (ton/yr)**
chromium	0.07	0.07
cobalt	0.01	0.01
nickel	0.12	0.12
arsenic	0.02	0.02
cadmium	0.01	0.01
selenium	0.00	0.00
Lead	0.18	0.18